

**SOURCE WATER PROTECTION BRANCH
WEEKLY ACTIVITY REPORT
WEEK ENDING AUGUST 8, 2014**

UPDATE ON HRI AQUIFER EXEMPTION (CHURCH ROCK, SECTION 8): The GW/UIC Section is currently finalizing the Statement of Basis for our reassessment of the original 1989 aquifer exemption granted Hydro Resources Inc. (HRI) to mine uranium in Section 8 near Church Rock, NM. This reassessment was agreed by the EPA Regional Administrators from Regions 6 and 9 after their consultation with the Navajo Nation on March 15, 2012. EPA solicited information on possible current sources of drinking water on or near Section 8 (i.e., on adjacent Sections 9 and 17) for our reassessment but received very little data relevant to our current use exemption criteria. None of the new information alters the technical basis for EPA's original approval decision on the HRI aquifer exemption. **Phil Dellinger, 665-8324; Lisa Pham, 665-8326**

PERGAN MARSHALL UPDATE: Pergan and their attorney met with a TCEQ enforcement group, which included Bryan Sinclair TCEQ's Enforcement Division Director, in Austin on Monday August 4th. This meeting was to discuss TCEQs pending enforcement action centered on Pergan's unauthorized injection of hazardous waste. At this meeting Pergan indicated they are no longer injecting any hazardous waste as they have expended the raw material used in the product manufacture that generated the hazardous waste. Pergan continues to inject nonhazardous waste without TCEQ's authorization. At this meeting Pergan indicated they should be submitting the permit application for their new well by Friday August 8th. This well will be drilled to a deeper injection interval, the Pettit, so Pergan can stop injecting into the overpressured Rodessa injection interval. Bryan Sinclair told Pergan that an enforcement order would be issued soon, possibly by Monday August 11th. Pergan also indicated to TCEQ they would be contacting Region 6 to coordinate a meeting to discuss their noncompliance with their existing no migration petition and to discuss a compliance plan. As of August 6th Region 6 has not been contacted by Pergan. **Brian Graves, 665-7193**

PLAN REVIEW FOLLOW-UP ASSISTANCE TO EASTERN SHAWNEE TRIBE OF OK: Members of the Region 6 Tribal Drinking Water Program and Tribal Affairs participated in a call requested by the Eastern Shawnee Tribe of Oklahoma on July 21, 2014. The call was to help the Tribe follow-up with their engineering consultants who recently constructed the new Indigo Sky Casino Water System. Unfortunately, the consultants built the water system without taking into account Region 6 plan review comments which were provided prior to construction. Now, the water system has been cited with significant deficiencies during a sanitary survey that are related to inadequate construction. On the call, Region 6 discussed providing copies of correspondence documentation to help the Tribe follow-up with the consultants as well as their Tribal Leadership and Gaming Commission to request support for addressing the deficiencies. This is an example of the unfortunate reality that EPA Regions lack the regulatory authority for plan and specs review and approval, whereas State Primacy Agencies have that authority to protect non-Tribal water systems from improper construction. Currently, Region 6 offers our plan review services voluntarily to the Tribes, as we work toward developing something that would protect the Tribes short of regulatory authority. **Kim Ngo, 665-7158;**

Jenna Manheimer, 665-7318; Randy Gee, 665-8355; Tina Arnold, 665-2709; Christina Kracher, 665-8054

GROUNDWATER/UIC SECTION OFFERS ASSISTANCE TO TEXAS RAILROAD COMMISSION GEOPHYSICIST:

Groundwater/UIC Section staff offered assistance to the new Texas Railroad Commission (TRRC) Geophysicist, Dr. Craig Pearson, in providing technical background information on the Barnett Shale basin and local geology. The assistance included area maps and a selection of references. The North Texas geologic and geophysical references were compiled while researching the induced seismicity report, and following up on more recent earthquakes. The maps incorporated TRRC well locations, USGS relocated seismic events, and different published fault locations. There are several large faults mapped in the immediate vicinity of the relocated earthquakes, though the exact location of the faults is uncertain at a refined scale. **Nancy Dorsey, 665-2294**

STATE RURAL WATER ASSOCIATION COLLABORATIVE WORKSHOP: Members of the Region 6 Drinking Water Section participated in the New Mexico Rural Water Association's Statewide Drinking Water Training Collaborative Workshop on July 29, 2014 via conference call. The workshop was a part of the Training and Technical Assistance for Small Public Water Systems, under the auspices of EPA HQ. The workshop invitations were extended to state, local, and federal participants to discuss critical drinking water training needs for small systems, including areas of rule implementation, capacity development and operations. Also discussed was the leveraging of training resources whereby tribal systems are invited, and vice versa on EPA sponsored trainings whereby State-regulated water systems are invited. Based on our input, the NMRWA will develop a training operating plan will be open to small systems both tribal and non-tribal systems. **Angela Restivo, 665-7123; Kim Ngo, 665-7158; Amy Camacho, 665-7175**

REGION 6 SPONSORED DRINKING WATER TRAINING FOR TRIBES IN NM:

The Region 6 Tribal Drinking Water Program sponsored "Understanding SDWA Compliance" training provided by the Southwest Environmental Finance Center on July 29, 2014 in Albuquerque, NM. The training was free and offered Operators the continuing education credits through the State of New Mexico as well as the EPA Region 6 Tribal Drinking Water Program. Topics covered at this training included: Safe Drinking Water Act overview, 2014 compliance sampling schedules, entry point vs distribution sampling, Stage 2 Disinfection Byproducts sampling, and chemical, radiological, and bacteriological sampling. This is one of a number of training events provided for Tribal water system operators and utility managers in Region 6. **Kim Ngo, 665-7158**

GROUNDWATER/UIC SECTION ANALYZES SELECT DISPOSAL WELLS NEAR

AZLE: Groundwater/UIC Section staff analyzed disposal well reports filed with the Texas Railroad Commission (TRRC) for nine wells in the area of the Azle seismicity. The injection formation is karstic limestone and dolomite, with significant rock heterogeneities varying between formation porosity, fractures, vugs and caverns. The Excel technique, known as a Hall plot with derivatives, was developed for the draft Induced Seismicity report, utilized UIC-reported individual well operational hydraulic data, and was refined for this analysis. In some cases, TRRC had requested daily monitoring data from various area injection well operators and

R6 staff noted significant differences between the daily well monitoring data and monthly reported TRRC UIC program data.

The individual well operational data plots provided a long-term timeframe look at individual well hydraulic behavior within the area disposal zone as well as a correlation to the timing of area seismic events. Several of the wells exhibited the same pattern of enhanced injectivity followed by decreased injectivity, finally moving to drastically reduced injectivity around the time of the earthquakes. The cumulative well pressure behavior seen on the Hall plots may reflect a combination response of the fluid moving through fractured or cavern areas (enhancement) and back into rubble or formation porosity (decrease) and finally possibly encountering area faults and/or other area injection wells. Although not definitive in terms of earthquake cause and effect, the plots provide an additional piece of information to identify potential injectors of concern in seismically active disposal areas. **Nancy Dorsey, 665-2294; Ken Johnson, 665-8473**